

*Sub
P1*

a third HDL module comprising:
a release condition;
wherein the first node condition output means outputs the first node condition to the second input means if the release condition is valid.

34. (Amended) A simulation method, comprising:

phase one, including;

forcing an initial logic zero, logic one or high-impedance on a node;

releasing the node;

testing to see if the node has been resolved;

if the node has been resolved, [continue] continuing to phase two; and

if the node has not been resolved, continuing in phase one; and

phase two, including;

monitoring the node value;

testing the node value;

indicating an error if an unacceptable condition appears on the node; and[,]

continuing in phase two until simulation completion.

REMARKS

Applicant has reviewed and considered the office action mailed on May 7, 2002 and the references cited therewith.

Claims 6, 19, 32 and 34 are amended; as a result, claims 1-35 remain pending in the application. Claims 6, 19, 32 and 34 were not amended in response to art rejections. Claims 6 and 19 were amended in response to objections in order to correct informalities identified in the objections. Claims 32 and 34 were amended to correct typographical errors identified by the applicant. No new matter has been added.

Claim Objections

Claims 6 and 19 were objected to because of informalities. Claims 6 and 19 have been amended per the Examiner's suggestions.

§102 Rejections of the Claims

Claims 1-4, 6-8, 12-18 and 20-24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mueller (Chronology TimigDesigner). Applicant traverses the rejections of claims 1-4, 6-8, 12-18 and 20-24.

Claims 1 and 15 recite "... *releasing* the node if a predetermined condition is met and creating therefrom a released node" (emphasis added) Claim 20 recites "... *release* means for releasing the node upon satisfaction of a condition" (emphasis added) Claim 24 recites "... a *release* module releasing the initial condition" (emphasis added)

In contrast, Mueller fails to teach a "release" element. Mueller teaches CREATING SIGNALS (using a mouse pointer to identify transitions in a signal), CREATING CLOCKS (entering clock definition parameters in a dialog box) and DELAYS AND CONSTRAINTS (specifying gate delays and setup and hold times). Hence, since Mueller fails to teach the "release" element, Mueller does not teach each of the elements of claims 1, 15, 20 and 24. Thus, the office action fails to state a *prima facie* case of anticipation with respect to claims 1, 15, 20 and 24.

Claims 2-4 and 6-7 are dependent on claim 1, claims 16-18 are dependent on claim 15 and claims 21-23 are dependent on claim 20. For reasons analogous to those provided above and elements in the claims, applicant respectfully submits that the office action fails to state a *prima facie* case of anticipation with respect to claims 2-4, 6-7, 16-18 and 21-23.

Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 1-4, 6-7 and 20-24.

Claim 8 recites "... providing an indication when the node is in an undesirable condition"

In contrast, Mueller fails to teach a "... providing an indication when the node is in an undesirable condition." Mueller teaches CREATING SIGNALS (using a mouse pointer to

identify transitions in a signal), CREATING CLOCKS (entering clock definition parameters in a dialog box) and DELAYS AND CONSTRAINTS (specifying gate delays and setup and hold times). Hence, since Mueller fails to teach the "... providing an indication when the node is in an undesirable condition" element, Mueller does not teach each of the elements of claims 8.

Thus, the office action fails to state a *prima facie* case of anticipation with respect to claim 8.

Claims 12-14 are dependent on claim 8. For reasons analogous to those provided above and elements in the claims, applicant respectfully submits that the office action fails to state a *prima facie* case of anticipation with respect to claims 12-14.

Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 8 and 12-14.

Claims 25-27 were rejected under 35 U.S.C. § 102(b) as being anticipated by IEEE 1164 (Standard Multivalued Logic System...). Applicant traverses the rejections of claims 25-27.

Claim 25 recites "... a means for maintaining a logic level of a simulated circuit node until a *release* condition is met." (emphasis added) In contrast, IEEE 1164 fails to teach meeting a "release" condition element. The office action cites to pages 2-4 of IEEE 1164 to support the anticipation rejection. Applicant has studied pp. 2-4 of IEEE 1164 and respectfully submits that pp. 2-4 do not teach "... until a *release* condition is met" (emphasis added) More, specifically, IEEE 1164 at pp. 2-4 fails to discuss the concept of a release condition. Hence, since IEEE 1164 fails to teach a release condition, IEEE 1164 does not teach each of the elements of claim 25. Thus, the office action fails to state a *prima facie* case of anticipation with respect to claim 25.

Claims 26-27 are dependent on claim 25. For reasons analogous to those provided above and elements in the claims, applicant respectfully submits that the office action fails to state a *prima facie* case of anticipation with respect to claims 26-27.

Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 25-27.

Claims 1-8, 12-30, and 33-35 were rejected under 35 U.S.C. § 102(b) as being anticipated by Tzartzanis (Verilog for Behavioral Modeling). Applicant traverses the rejections of claims 1-8, 12-30 and 33-35.

Claims 1 and 15 recite "... *releasing* the node if a predetermined condition is met and creating therefrom a released node" (emphasis added) Claim 20 recites "... *release* means for releasing the node upon satisfaction of a condition" (emphasis added) Claim 24 recites "... a *release* module releasing the initial condition" (emphasis added) Claim 25 recites "... until a *release* condition is met" (emphasis added) Claim 28 recites "... an initial condition *release* means" (emphasis added) Claim 29 recites "... means for *releasing* an initial condition" (emphasis added) Claim 33 recites "... *releasing* the node if a condition is met" (emphasis added) Claim 34 recites "... *releasing* the node" (emphasis added)

In contrast, Tzartzanis fails to teach a "release" element. The office action cites to page 37 of Tzartzanis to support the anticipation rejection. Applicant respectfully submits that page 37 of Tzartzanis teaches a generic programming IF-THEN-ELSE construct. In general, Tzartzanis teaches generic programming and simulation constructs, but Tzartzanis does not teach the "release" element. Hence, since Tzartzanis fails to teach the "release" element, Tzartzanis does not teach each of the elements of claims 1, 15, 20, 24, 25, 28, 29, 33 and 34. Thus, the office action fails to state a *prima facie* case of anticipation with respect to claims 1, 15, 20, 24, 25, 28, 29, 33 and 34.

Claims 2-7 are dependent on claim 1. Claims 16-19 are dependent on claim 15. Claims 21-23 are dependent on claim 20. Claims 26-27 are dependent on claim 25. Claim 30 is dependent on claim 29. Claim 35 is dependent on claim 34. For reasons analogous to those provided above and elements in the claims, applicant respectfully submits that the office action fails to state a *prima facie* case of anticipation with respect to claims 2-7, 16-19, 21-23, 26-27, 30 and 35.

Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 1-7, 15-30, 33-35.

Claim 8 recites "... providing an indication when the node is in an undesirable condition"

In contrast, Tzartzanis fails to teach a "... providing an indication when the node is in an undesirable condition." The office action at page 8, paragraph 39, cites to Tzartzanis, pp 63, 67-

70. Applicant respectfully submits that Tzartantis teaches at page 63 an "information display" routine, at page 67 a "file output" routine, at page 68 a "finish" routine, at page 69 a "loading memories from text files" routine, and at page 70 a "displaying signals as graphical waveforms" routine. None of this routines teaches ". . . providing an indication when the node is in an undesirable condition." None of these routines is even related to processing nodes in a simulation. Hence, since Tzartantis fails to teach the ". . . providing an indication when the node is in an undesirable condition" element, Tzartantis does not teach each of the elements of claims 8. Thus, the office action fails to state a *prima facie* case of anticipation with respect to claim 8.

Claims 12-14 are dependent on claim 8. For reasons analogous to those provided above and elements in the claims, applicant respectfully submits that the office action fails to state a *prima facie* case of anticipation with respect to claims 12-14.

Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 8 and 12-14.

103 Rejection of the Claims

Claims 5, 9, 10, 11, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view IEEE 1164. Applicant traverses the rejections of claims 5, 9, 10, 11 and 19.

The office action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). The statements in paragraphs 86-90 related to increasing the resolution of the simulation, reducing ambiguity in the simulation results and decreasing the functionality of the system do not constitute specific, objective evidence of record. They are simply not found in the record. And since the office action provides no other statements that are of record in paragraphs 86-90, the finding of a suggestion or motivation to combine the reference teachings is not supported. Thus, the office action fails to state a *prima facie* case of obviousness with respect to claims 5, 9, 10, 11 and 19. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claims 5, 9, 10, 11 and 19.

Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Mueller in view of Tzartzanis. Applicant traverses the rejection of claim 31.

The office action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Since the office action only states in paragraph 92 that "it would have been obvious to one of ordinary skill in the art to modify the teachings of Mueller with Tzartzanis in order to implement the features in a modular program, because this was well known and commonly used in the art," the office action has failed to provide specific, objective evidence of record for a finding of a suggestion or motivation to combine the reference teachings. Thus, the office action fails to state a *prima facie* case of obviousness with respect to claim 31. Therefore, applicant requests withdrawal of the rejection and reconsideration and allowance of claim 31.

Claim 32 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tzartzanis. Applicant traverses the rejection of claim 32.

The office action asserts in paragraph 92 that Tzartzanis teaches release conditions at page 37. Applicant respectfully disagrees. Applicant submits that Tzartzanis at page 37 teaches a generic programming IF-THEN-ELSE construct. In general, Tzartzanis teaches generic programming and simulation constructs, but Tzartzanis does not teach the "release condition" element because the "release condition" element of claim 32 can cause the output of the first node condition to be passed to the second input means. A generic IF-THEN-ELSE programming construct, as taught by Tzartzanis, does not teach or suggest this operation. Hence, since Tzartzanis fails to teach or suggest the "release" element, Tzartzanis does not teach each of the elements of claim 32. Thus, the office action fails to state a *prima facie* case of obviousness with respect to claim 32. Therefore, applicant requests withdrawal of the rejections and reconsideration and allowance of claim 32.

Furthermore, the office action at paragraph 92 states "Tzartzanis does not expressly teach three related modules. Applicant agrees. And since all the elements of the claim 32 are not found in the cited reference, applicant assumes that the Examiner is taking official notice of the

missing element from an undisclosed source. Applicant respectfully objects to the taking of official notice, and pursuant to M.P.E.P. § 2144.03, applicant traverses the assertion of official notice and requests that the Examiner cite a reference that teaches the missing elements. If the Examiner cannot cite a reference that teaches the missing elements, applicant respectfully requests that the Examiner provide an affidavit that describes how the missing elements are present in the prior art. If the examiner cannot cite a reference or provide an affidavit, applicant requests withdrawal of the rejection and reconsideration and allowance of claim 32.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone applicant's attorney at 612-371-2109 to facilitate prosecution of the application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

BOHR-WINN SHIH ET AL.

By their Representatives,

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Date

August 6, 2002

By

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 6 day of August, 2002.

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Signature

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